

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 15, 2025

Eric Vonde

Tasman Geosciences

4725 Independence St.

Wheat Ridge, CO 80033

RE: Noble - Wells Ranch AA21-04

Work Order #2502397

Enclosed are the results of analyses for samples received by Summit Scientific on 02/21/25 18:16. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury  
President



Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL01R-S@4'	2502397-01	Soil	02/21/25 12:30	02/21/25 18:16
FL01-01@4'	2502397-02	Soil	02/21/25 12:06	02/21/25 18:16

		<b>Send Data To:</b>	<b>Send Invoice To:</b>
Client: Tasman, Inc.	Project Manager: Eric Vonde		Company: Noble
Address: 6855 W. 119th Ave.	E-Mail: Tas-chevron-5@tasman-geo.com		Project Name/Location: Wells Ranch AA 21-04
City/State/Zip: Broomfield / CO/ 80020	rbueuf27@chevron.com	jason.davidson@chevron.com	AFE#: UWRWE-A2817-ABN
Phone: 303-487-1228	Project Name: Wells Ranch AA 21-04		PO/Billing Codes:
Sampler Name: E. Card, W Wadleigh	Project Number:		Contact: Mike Montoya

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested							Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD			
1	FLOIR-S @ 4'	2/21/25	1230	2			X			X				X	X	X	X	X	X		SAR, EC, pH by saturated paste	
2	FLOI-01 @ 4'	2/21/25	1206	2			X			X				X	X	X	X	X	X			
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15																						

Relinquished by: M. Eliwell	Date/Time: 2/21/25 1500	Received by: Tasman Lockbox	Date/Time: 2/21/25 1500	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lockbox	Date/Time: 2/21/25 1816	Received by: [Signature]	Date/Time: 2/21/25 1816	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 19	Corrected Temperature: 6	IR gun #: 1	HNO3 lot #:			

# S<sub>2</sub>

S2 Work Order# 2502397

## Sample Receipt Checklist

Client: Taman Client Project ID: Wells Ranch AA 21-04Received Via: H.D./P.U./FedEx/UPS/USPS/Other  Airbill #: \_\_\_\_\_Matrix (Circle all that apply) Air/Soil/Water/Other  Temp (°C) 1.9 Thermometer # 1Bottle ware (Circle all that apply) Glass/Jar/Voa/Amber/Poly/Other 

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	-			<u>NOTE</u>
If custody seals are present, are they intact? <sup>(1)</sup>	-			
Are samples due within 48 hours?		-		
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/ Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD, Total Residual Chlorine (TRC)		-		
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	-			
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	-			
Were all samples received intact? <sup>(1)</sup>	✓			
Was adequate sample volume provided? <sup>(1)</sup>	✓			
Were samples provided in appropriate bottle ware?	✓			
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	✓			
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are any samples/bottles preserved (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.			✓	
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Are there requested analysis that cannot be performed by S2? Note analysis in the comments column			✓	
Additional Comments (if any):				

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

Control Form #: SRC-001

AS  
Custodian Printed Name

2/21/25  
Date/Time



Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**FL01R-S@4'**  
**2502397-01 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIC0350	03/06/25	03/20/25	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0387	96.8 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0392	98.0 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0386	96.4 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIC0359	03/06/25	03/21/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.63	61.0 %		50-140		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**FL01R-S@4'**  
**2502397-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIC0264	03/05/25	03/15/25	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
<b>2-Methylnaphthalene</b>	<b>0.00520</b>	0.00500	"	"	"	"	"	"	

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0230	68.9 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0192	57.6 %	40-140		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIC0936	03/17/25	03/20/25	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**FL01R-S@4'**  
**2502397-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.683	0.200	mg/kg dry	1	BIC1389	03/24/25	04/13/25	EPA 6020B	
Barium	120	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.51	0.400	"	"	"	"	"	"	
Lead	7.45	0.200	"	"	"	"	"	"	
Nickel	1.46	0.400	"	"	"	"	"	"	
Silver	0.0335	0.0200	"	"	"	"	"	"	
Zinc	6.04	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIC0017	03/02/25	03/03/25	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	4780	0.0500	mg/L dry	1	BIC0925	03/16/25	03/26/25	EPA 6020B	
Magnesium	250	0.0500	"	"	"	"	"	"	
Sodium	15.7	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0600	0.00100	units	1	BIC1674	03/27/25	03/27/25	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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4725 Independence St.  
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Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**FL01R-S@4'**  
**2502397-01 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.1			%	1	BIB1576	02/27/25	02/27/25	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.262	0.0100		mmhos/cm	1	BIC0926	03/16/25	03/20/25	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/21/25 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.69			pH Units	1	BIC0927	03/16/25	03/20/25	EPA 9045D	

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4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**FL01-01@4'**  
**2502397-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BIC0350	03/06/25	03/20/25	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0371	92.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0391	97.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0391	97.7 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BIC0359	03/06/25	03/29/25	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.4	83.2 %	50-140		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**FL01-01@4'**  
**2502397-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.124	0.00500	mg/kg	1	BIC0264	03/05/25	03/15/25	EPA 8270D SIM	
Anthracene	0.239	0.00500	"	"	"	"	"	"	E
Benzo (a) anthracene	0.250	0.00500	"	"	"	"	"	"	E
Benzo (a) pyrene	0.142	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	0.261	0.00500	"	"	"	"	"	"	E
Benzo (k) fluoranthene	0.0882	0.00500	"	"	"	"	"	"	
Chrysene	0.237	0.00500	"	"	"	"	"	"	E
Dibenz (a,h) anthracene	0.0318	0.00500	"	"	"	"	"	"	
Fluoranthene	0.711	0.00500	"	"	"	"	"	"	E
Fluorene	0.175	0.00500	"	"	"	"	"	"	E
Indeno (1,2,3-cd) pyrene	0.168	0.00500	"	"	"	"	"	"	E
Pyrene	0.518	0.00500	"	"	"	"	"	"	E
1-Methylnaphthalene	0.0181	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0294	0.00500	"	"	"	"	"	"	

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0162	48.6 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0146	43.9 %	40-140		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BIC0936	03/17/25	03/20/25	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.693	0.200	mg/kg dry	1	BIC1389	03/24/25	04/13/25	EPA 6020B	

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Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**FL01-01@4'**  
**2502397-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Barium	64.7	0.400	mg/kg dry	1	BIC1389	03/24/25	04/13/25	EPA 6020B	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.40	0.400	"	"	"	"	"	"	
Lead	7.28	0.200	"	"	"	"	"	"	
Nickel	1.24	0.400	"	"	"	"	"	"	
Silver	0.0233	0.0200	"	"	"	"	"	"	
Zinc	5.95	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIC0017	03/02/25	03/03/25	EPA 7196A	

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	2700	0.0500	mg/L dry	1	BIC0925	03/16/25	03/26/25	EPA 6020B	
Magnesium	168	0.0500	"	"	"	"	"	"	
Sodium	14.1	0.0500	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0712	0.00100	units	1	BIC1674	03/27/25	03/27/25	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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 4725 Independence St.  
 Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
 Project Manager: Eric Vonde

**Reported:**  
 04/15/25 07:53

**FL01-01@4'**  
**2502397-02 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	90.1	%	1	BIB1576	02/27/25	02/27/25	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.285	0.0100	mmhos/cm	1	BIC0926	03/16/25	03/20/25	EPA 120.1	

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction**

Date Sampled: **02/21/25 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.50		pH Units	1	BIC0927	03/16/25	03/20/25	EPA 9045D	

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4725 Independence St.  
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Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

#### Batch BIC0350 - EPA 5030 Soil MS

##### Blank (BIC0350-BLK1)

Prepared: 03/06/25 Analyzed: 03/20/25

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
1,2,4-Trimethylbenzene	ND	0.0050	"								
1,3,5-Trimethylbenzene	ND	0.0050	"								
Naphthalene	ND	0.0038	"								
Gasoline Range Hydrocarbons	ND	0.50	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0382		"	0.0400		95.6	50-150				
<i>Surrogate: Toluene-d8</i>	0.0402		"	0.0400		101	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0390		"	0.0400		97.5	50-150				

##### LCS (BIC0350-BS1)

Prepared: 03/06/25 Analyzed: 03/20/25

Benzene	0.0781	0.0020	mg/kg	0.100		78.1	70-130				
Toluene	0.0807	0.0050	"	0.100		80.7	70-130				
Ethylbenzene	0.0900	0.0050	"	0.100		90.0	70-130				
m,p-Xylene	0.171	0.010	"	0.200		85.7	70-130				
o-Xylene	0.0857	0.0050	"	0.100		85.7	70-130				
1,2,4-Trimethylbenzene	0.0871	0.0050	"	0.100		87.1	70-130				
1,3,5-Trimethylbenzene	0.0866	0.0050	"	0.100		86.6	70-130				
Naphthalene	0.0873	0.0038	"	0.100		87.3	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0360		"	0.0400		89.9	50-150				
<i>Surrogate: Toluene-d8</i>	0.0397		"	0.0400		99.2	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0392		"	0.0400		98.0	50-150				

##### Matrix Spike (BIC0350-MS1)

Source: 2502394-01

Prepared: 03/06/25 Analyzed: 03/20/25

Benzene	0.0981	0.0020	mg/kg	0.100	ND	98.1	70-130				
Toluene	0.100	0.0050	"	0.100	ND	100	70-130				
Ethylbenzene	0.105	0.0050	"	0.100	ND	105	70-130				
m,p-Xylene	0.200	0.010	"	0.200	ND	100	70-130				
o-Xylene	0.101	0.0050	"	0.100	ND	101	70-130				
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130				
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130				
Naphthalene	0.0952	0.0038	"	0.100	ND	95.2	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0396		"	0.0400		99.1	50-150				
<i>Surrogate: Toluene-d8</i>	0.0402		"	0.0400		101	50-150				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0392		"	0.0400		98.1	50-150				

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Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch BIC0350 - EPA 5030 Soil MS**

Matrix Spike Dup (BIC0350-MSD1)	Source: 2502394-01			Prepared: 03/06/25 Analyzed: 03/20/25						
Benzene	0.0880	0.0020	mg/kg	0.100	ND	88.0	70-130	10.9	30	
Toluene	0.0909	0.0050	"	0.100	ND	90.9	70-130	9.85	30	
Ethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130	2.37	30	
m,p-Xylene	0.194	0.010	"	0.200	ND	97.0	70-130	3.22	30	
o-Xylene	0.0992	0.0050	"	0.100	ND	99.2	70-130	1.38	30	
1,2,4-Trimethylbenzene	0.0969	0.0050	"	0.100	ND	96.9	70-130	4.12	30	
1,3,5-Trimethylbenzene	0.0983	0.0050	"	0.100	ND	98.3	70-130	2.98	30	
Naphthalene	0.0918	0.0038	"	0.100	ND	91.8	70-130	3.69	30	
Surrogate: 1,2-Dichloroethane-d4	0.0338		"	0.0400		84.4	50-150			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.7	50-150			

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4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

**Batch BIC0359 - EPA 3550A**

**Blank (BIC0359-BLK1)**

Prepared: 03/06/25 Analyzed: 03/21/25

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	8.78		"	12.5		70.2	50-140				

**LCS (BIC0359-BS1)**

Prepared: 03/06/25 Analyzed: 03/21/25

C10-C28 (DRO)	365	50	mg/kg	500		72.9	50-140				
Surrogate: <i>o</i> -Terphenyl	9.20		"	12.5		73.6	50-140				

**Matrix Spike (BIC0359-MS1)**

Source: 2502394-01

Prepared: 03/06/25 Analyzed: 03/21/25

C10-C28 (DRO)	341	50	mg/kg	500	9.68	66.3	50-140				
Surrogate: <i>o</i> -Terphenyl	8.19		"	12.5		65.5	50-140				

**Matrix Spike Dup (BIC0359-MSD1)**

Source: 2502394-01

Prepared: 03/06/25 Analyzed: 03/21/25

C10-C28 (DRO)	415	50	mg/kg	500	9.68	81.1	50-140	19.6	20		
Surrogate: <i>o</i> -Terphenyl	9.72		"	12.5		77.7	50-140				

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Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**PAH by EPA Method 8270D SIM - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

**Batch BIC0264 - EPA 5030 Soil MS**

**Blank (BIC0264-BLK1)**

Prepared: 03/05/25 Analyzed: 03/15/25

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0152</i>		"	<i>0.0333</i>		<i>45.7</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0196</i>		"	<i>0.0333</i>		<i>58.8</i>	<i>40-140</i>			

**LCS (BIC0264-BS1)**

Prepared: 03/05/25 Analyzed: 03/15/25

Acenaphthene	0.0170	0.00500	mg/kg	0.0333		50.9	40-140			
Anthracene	0.0179	0.00500	"	0.0333		53.7	40-140			
Benzo (a) anthracene	0.0190	0.00500	"	0.0333		57.1	40-140			
Benzo (a) pyrene	0.0181	0.00500	"	0.0333		54.2	40-140			
Benzo (b) fluoranthene	0.0182	0.00500	"	0.0333		54.5	40-140			
Benzo (k) fluoranthene	0.0171	0.00500	"	0.0333		51.2	40-140			
Chrysene	0.0174	0.00500	"	0.0333		52.1	40-140			
Dibenz (a,h) anthracene	0.0178	0.00500	"	0.0333		53.3	40-140			
Fluoranthene	0.0178	0.00500	"	0.0333		53.5	40-140			
Fluorene	0.0178	0.00500	"	0.0333		53.3	40-140			
Indeno (1,2,3-cd) pyrene	0.0193	0.00500	"	0.0333		57.8	40-140			
Pyrene	0.0175	0.00500	"	0.0333		52.4	40-140			
1-Methylnaphthalene	0.0192	0.00500	"	0.0333		57.5	40-140			
2-Methylnaphthalene	0.0212	0.00500	"	0.0333		63.5	40-140			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0185</i>		"	<i>0.0333</i>		<i>55.4</i>	<i>40-140</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0176</i>		"	<i>0.0333</i>		<i>52.9</i>	<i>40-140</i>			

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Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**PAH by EPA Method 8270D SIM - Quality Control**

**Summit Scientific**

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch BIC0264 - EPA 5030 Soil MS**

<b>Matrix Spike (BIC0264-MS1)</b>	<b>Source: 2502385-01</b>			<b>Prepared: 03/05/25 Analyzed: 03/15/25</b>							
Acenaphthene	0.0369	0.00500	mg/kg	0.0333	ND	111	40-140				
Anthracene	0.0203	0.00500	"	0.0333	ND	60.9	40-140				
Benzo (a) anthracene	0.0220	0.00500	"	0.0333	ND	66.1	40-140				
Benzo (a) pyrene	0.0189	0.00500	"	0.0333	ND	56.6	40-140				
Benzo (b) fluoranthene	0.0184	0.00500	"	0.0333	ND	55.3	40-140				
Benzo (k) fluoranthene	0.0168	0.00500	"	0.0333	ND	50.5	40-140				
Chrysene	0.0222	0.00500	"	0.0333	ND	66.7	40-140				
Dibenz (a,h) anthracene	0.0189	0.00500	"	0.0333	ND	56.6	40-140				
Fluoranthene	0.0223	0.00500	"	0.0333	ND	66.9	40-140				
Fluorene	0.0487	0.00500	"	0.0333	0.0411	22.8	40-140				QM-05
Indeno (1,2,3-cd) pyrene	0.0148	0.00500	"	0.0333	ND	44.3	40-140				
Pyrene	0.0210	0.00500	"	0.0333	ND	62.9	40-140				
1-Methylnaphthalene	0.159	0.00500	"	0.0333	0.221	NR	40-140				QM-05
2-Methylnaphthalene	0.366	0.00500	"	0.0333	0.540	NR	40-140				QM-05
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0199</i>		<i>"</i>	<i>0.0333</i>		<i>59.7</i>	<i>40-140</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0200</i>		<i>"</i>	<i>0.0333</i>		<i>59.9</i>	<i>40-140</i>				

<b>Matrix Spike Dup (BIC0264-MSD1)</b>	<b>Source: 2502385-01</b>			<b>Prepared: 03/05/25 Analyzed: 03/15/25</b>							
Acenaphthene	0.0392	0.00500	mg/kg	0.0333	ND	118	40-140	6.15	30		
Anthracene	0.0229	0.00500	"	0.0333	ND	68.6	40-140	12.0	30		
Benzo (a) anthracene	0.0245	0.00500	"	0.0333	ND	73.6	40-140	10.8	30		
Benzo (a) pyrene	0.0210	0.00500	"	0.0333	ND	63.1	40-140	10.9	30		
Benzo (b) fluoranthene	0.0207	0.00500	"	0.0333	ND	62.0	40-140	11.3	30		
Benzo (k) fluoranthene	0.0187	0.00500	"	0.0333	ND	56.2	40-140	10.7	30		
Chrysene	0.0251	0.00500	"	0.0333	ND	75.2	40-140	12.1	30		
Dibenz (a,h) anthracene	0.0225	0.00500	"	0.0333	ND	67.4	40-140	17.4	30		
Fluoranthene	0.0254	0.00500	"	0.0333	ND	76.3	40-140	13.1	30		
Fluorene	0.0544	0.00500	"	0.0333	0.0411	39.9	40-140	11.1	30		QM-05
Indeno (1,2,3-cd) pyrene	0.0170	0.00500	"	0.0333	ND	50.9	40-140	13.8	30		
Pyrene	0.0230	0.00500	"	0.0333	ND	69.0	40-140	9.23	30		
1-Methylnaphthalene	0.199	0.00500	"	0.0333	0.221	NR	40-140	22.2	30		QM-05
2-Methylnaphthalene	0.455	0.00500	"	0.0333	0.540	NR	40-140	21.7	30		QM-05
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0218</i>		<i>"</i>	<i>0.0333</i>		<i>65.4</i>	<i>40-140</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0230</i>		<i>"</i>	<i>0.0333</i>		<i>69.0</i>	<i>40-140</i>				

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Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

**Batch BIC0936 - EPA 3050B**

**Blank (BIC0936-BLK1)**

Prepared: 03/17/25 Analyzed: 03/20/25

Boron ND 2.00 mg/L

**LCS (BIC0936-BS1)**

Prepared: 03/17/25 Analyzed: 03/20/25

Boron 4.97 2.00 mg/L 5.00 99.4 80-120

**Duplicate (BIC0936-DUP1)**

Source: 2502395-02

Prepared: 03/17/25 Analyzed: 03/20/25

Boron 0.282 2.00 mg/L 0.289 2.58 20

**Matrix Spike (BIC0936-MS1)**

Source: 2502395-02

Prepared: 03/17/25 Analyzed: 03/20/25

Boron 5.34 2.00 mg/L 5.02 0.289 101 75-125

**Matrix Spike Dup (BIC0936-MSD1)**

Source: 2502395-02

Prepared: 03/17/25 Analyzed: 03/20/25

Boron 5.50 2.00 mg/L 5.02 0.289 104 75-125 2.91 25

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Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

**Batch BIC1389 - EPA 3050B**

**Blank (BIC1389-BLK1)**

Prepared: 03/24/25 Analyzed: 04/13/25

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

**LCS (BIC1389-BS1)**

Prepared: 03/24/25 Analyzed: 04/12/25

Arsenic	38.9	0.200	mg/kg wet	41.7	93.5	80-120
Barium	39.0	0.400	"	41.7	93.7	80-120
Cadmium	1.93	0.200	"	2.08	92.8	80-120
Copper	41.9	0.400	"	41.7	101	80-120
Lead	21.0	0.200	"	20.8	101	80-120
Nickel	41.4	0.400	"	41.7	99.3	80-120
Silver	1.97	0.0200	"	2.08	94.4	80-120
Zinc	41.4	0.400	"	41.7	99.4	80-120
Selenium	3.74	0.260	"	4.17	89.8	80-120

**Duplicate (BIC1389-DUP1)**

Source: 2502394-29

Prepared: 03/24/25 Analyzed: 04/12/25

Arsenic	2.25	0.200	mg/kg dry	2.36	4.95	20
Barium	119	0.400	"	119	0.388	20
Cadmium	0.709	0.200	"	0.816	14.0	20
Copper	2.17	0.400	"	2.58	17.4	20
Lead	13.5	0.200	"	12.5	7.57	20
Nickel	1.98	0.400	"	3.23	48.1	20 QR-04
Silver	0.0236	0.0200	"	0.0219	7.55	20
Zinc	8.99	0.400	"	12.3	31.2	20 QR-04
Selenium	0.377	0.260	"	0.505	29.2	20 QR-04

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Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

**Batch BIC1389 - EPA 3050B**

<b>Matrix Spike (BIC1389-MS1)</b>	<b>Source: 2502394-29</b>			Prepared: 03/24/25		Analyzed: 04/12/25					
Arsenic	9.57	0.200	mg/kg dry	47.0	2.36	15.3	75-125				QM-05
Barium	239	0.400	"	47.0	119	255	75-125				QM-05
Cadmium	3.17	0.200	"	2.35	0.816	100	75-125				
Copper	10.5	0.400	"	47.0	2.58	16.8	75-125				QM-05
Lead	34.0	0.200	"	23.5	12.5	91.5	75-125				
Nickel	11.1	0.400	"	47.0	3.23	16.7	75-125				QM-05
Silver	2.40	0.0200	"	2.35	0.0219	101	75-125				
Zinc	16.5	0.400	"	47.0	12.3	8.89	75-125				QM-05
Selenium	4.45	0.260	"	4.70	0.505	83.9	75-125				

<b>Matrix Spike Dup (BIC1389-MSD1)</b>	<b>Source: 2502394-29</b>			Prepared: 03/24/25		Analyzed: 04/12/25					
Arsenic	8.86	0.200	mg/kg dry	45.5	2.36	14.3	75-125	7.64	25		QM-05
Barium	405	0.400	"	45.5	119	628	75-125	51.6	25		QM-05
Cadmium	3.06	0.200	"	2.28	0.816	98.5	75-125	3.60	25		
Copper	8.68	0.400	"	45.5	2.58	13.4	75-125	18.7	25		QM-05
Lead	31.2	0.200	"	22.8	12.5	82.1	75-125	8.68	25		
Nickel	9.08	0.400	"	45.5	3.23	12.8	75-125	19.8	25		QM-05
Silver	2.35	0.0200	"	2.28	0.0219	102	75-125	2.11	25		
Zinc	15.6	0.400	"	45.5	12.3	7.21	75-125	5.59	25		QM-05
Selenium	4.63	0.260	"	4.55	0.505	90.6	75-125	3.95	25		

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Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

**Batch BIC0017 - 3060A Mod**

**Blank (BIC0017-BLK1)**

Prepared: 03/02/25 Analyzed: 03/03/25

Chromium, Hexavalent ND 0.30 mg/kg wet

**LCS (BIC0017-BS1)**

Prepared: 03/02/25 Analyzed: 03/03/25

Chromium, Hexavalent 22.6 0.30 mg/kg wet 24.0 94.2 80-120

**Duplicate (BIC0017-DUP1)**

**Source: 2502372-36**

Prepared: 03/02/25 Analyzed: 03/03/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

**Matrix Spike (BIC0017-MS1)**

**Source: 2502372-36**

Prepared: 03/02/25 Analyzed: 03/03/25

Chromium, Hexavalent 23.9 0.30 mg/kg dry 25.3 ND 94.6 75-125

**Matrix Spike Dup (BIC0017-MSD1)**

**Source: 2502372-36**

Prepared: 03/02/25 Analyzed: 03/03/25

Chromium, Hexavalent 25.0 0.30 mg/kg dry 25.8 ND 97.2 75-125 4.71 20

Summit Scientific

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Tasman Geosciences  
 4725 Independence St.  
 Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
 Project Manager: Eric Vonde

**Reported:**  
 04/15/25 07:53

**Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch BIC0925 - General Preparation**

**Blank (BIC0925-BLK1)**

Prepared: 03/16/25 Analyzed: 03/26/25

Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

**LCS (BIC0925-BS1)**

Prepared: 03/16/25 Analyzed: 03/27/25

Calcium	4.66	0.0500	mg/L wet	5.00		93.3	70-130			
Magnesium	4.70	0.0500	"	5.00		94.0	70-130			
Sodium	4.61	0.0500	"	5.00		92.2	70-130			

Summit Scientific

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Tasman Geosciences  
 4725 Independence St.  
 Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
 Project Manager: Eric Vonde

**Reported:**  
 04/15/25 07:53

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike	Source		%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

**Batch BIB1576 - General Preparation**

**Duplicate (BIB1576-DUP1)**

**Source: 2502396-01**

Prepared & Analyzed: 02/27/25

% Solids	86.5		%		87.2			0.777		20	
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Summit Scientific

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Tasman Geosciences  
 4725 Independence St.  
 Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
 Project Manager: Eric Vonde

**Reported:**  
 04/15/25 07:53

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

**Batch BIC0926 - General Preparation**

**Blank (BIC0926-BLK1)**

Prepared: 03/16/25 Analyzed: 03/20/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BIC0926-BS1)**

Prepared: 03/16/25 Analyzed: 03/20/25

Specific Conductance (EC) 1.45 0.0100 mmhos/cm 1.41 103 95-105

**Duplicate (BIC0926-DUP1)**

Source: 2502370-01

Prepared: 03/16/25 Analyzed: 03/20/25

Specific Conductance (EC) 0.0659 0.0100 mmhos/cm 0.0651 1.32 20

Summit Scientific

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Tasman Geosciences  
 4725 Independence St.  
 Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
 Project Manager: Eric Vonde

**Reported:**  
 04/15/25 07:53

**Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control**

**Summit Scientific**

Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

**Batch BIC0927 - General Preparation**

**LCS (BIC0927-BS1)**

Prepared: 03/16/25 Analyzed: 03/20/25

pH	9.15	pH Units	9.18	99.7	95-105
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**Duplicate (BIC0927-DUP1)**

Source: 2502370-01

Prepared: 03/16/25 Analyzed: 03/20/25

pH	7.96	pH Units	7.97	0.225	20
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Summit Scientific

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Tasman Geosciences  
4725 Independence St.  
Wheat Ridge CO, 80033

Project: Noble - Wells Ranch AA21-04

Project Number: [none]  
Project Manager: Eric Vonde

**Reported:**  
04/15/25 07:53

### Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values. Only applies to source/DUP and MS/MSD pairs.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference